

REMARKS

A Request for Continued Examination under 37 C.F.R. §1.114 and a Petition for Extension of Time under 37 C.F.R. §1.136(a) are being filed concurrently herewith.

In the Office Action, claims 21-24 were rejected. More specifically,

- Claims 21-24 were rejected under 35 U.S.C. §§ 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being obvious in view of the publication to Marois et al. ("Marois").

By this Amendment, claim 21 has been amended. Applicants do not believe that any new matter is introduced by this Amendment, and submit that support for the claim amendment may be found throughout the specification as filed. Upon entry of this Amendment, claims 21-31 are pending, of which claims 25-31 are withdrawn. For the reasons set forth hereinbelow,

Applicants traverse the rejections and respectfully request that the rejections of the claims be withdrawn.

§102/103 Rejections Based on Marois

Claims 21-24

The Examiner rejects claims 21-24 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Marois. It is respectfully submitted that the Examiner has inappropriately assumed that the strains disclosed in Marois are inherently the same as those disclosed and claimed in the present application. Additionally, the presently claimed strain displays unexpected properties when compared to Marois and is thus non-obvious over Marois.

Marois discloses a fungal strain that is capable of controlling fungal pathogens. The

Examiner further asserts that the fungal strain of Marois is in the same class as the presently claimed B-422. Page 3 of Final Office Action. Applicants respectfully submit that this provides no basis for concluding that they are the same organism. Many microorganisms of the same class or even genus possess similar properties, but that in no manner establishes that they are the same organism. Instead, a genetic comparison of the two organisms is more appropriate to establish the equivalency or similarity of two fungal strains.

Applicants have undertaken a genetic analysis of the ITS region of 5.8S-rDNA of B-422. The Declaration of Hideaki Tateishi dated April 12, 2011 (“Tateishi Declaration”) is submitted detailing those studies. *See* Tateishi Declaration, ¶5. Applicants conducted BLAST homology searches in genetic databases to look for similar fungal strains. *Id.* Based on that analysis B-422 may be predicted as being genetically closer to some fungi rather than *Talaromyces flavus*, e.g. *Penicillium verruculosum* and *Penicillium pinophilum*. *Id.* Nonetheless, those strains are genetically distinct from B-422. Tateishi Declaration, ¶6. Indeed, the bootstrap value (which reflects phylogenetic homology) comparing *Talaromyces flavus* And B-422 is very low and firmly establishes that the two fungi are not the same species. Tateishi Declaration, ¶7.

Furthermore, *Talaromyces sp.* B-422 is capable of controlling seed-borne diseases of Gramineous plants, while Marois only discloses that *Talaromyces flavus* is capable of controlling verticillium wilt of eggplant. Verticillium wilt of eggplant is a kind of soil-borne disease which infects plants through soil and is totally different in infection route and mechanisms of outbreak from seed-borne diseases. Tateishi Declaration, ¶8.

Finally, Applicants submit that the origin and habitat of the two fungal strains reflects a difference in the fungi. According to Marois, the *Talaromyces flavus* strain there was isolated from the sclerotia of pathogenic fungi in soil. In contrast, B-422 was isolated from the rice plant

and the present specification discloses that it can grow in rice plants to some extent. Based on these distinctions, Applicants further submit that B-422 is distinct from the *Talaromyces flavus* from Marois.

Applicants submit that based on all of these factors that B-422 is a distinct fungal strain from the *Talaromyces flavus* disclosed by Marois. Thus, an anticipation rejection based on Marois is inappropriate as Marois does not disclose each and every element of the presently pending claims. As the Examiner is aware, a claim is anticipated by a prior art reference if, and only if, each and every claim limitation may be found, either expressly or inherently described, in a single prior art reference. MPEP § 2131.01. It is respectfully submitted that the cited reference does not satisfy this requirement. Accordingly, the rejection of the present claims under § 102 are inappropriate. Reconsideration and withdrawal of these rejections are respectfully requested.

With respect to the §103 rejections, Applicants submit that independent claim 21 is also nonobvious in view of Marois. In accordance with the analysis stated in *Graham v. John Deere Co.*, a determination of obviousness under § 103 requires (1) determining the scope and content of the prior art; (2) ascertaining the differences between the claimed invention and the prior art; and (3) resolving the level of ordinary skill in the pertinent art. The question of obviousness must be resolved on the basis of these factual inquiries and any secondary considerations. See MPEP § 2141.

Applicants submit that the differences between the Marois and the claimed invention are substantial, and that when the invention recited in claim 21 is considered as a whole, the invention recited in claim 21 is nonobvious in view of Marois. See MPEP § 2141.02. The fact that Marois fails to disclose, teach or suggest that *Talaromyces* controls not only soil-borne

disease, but also seed-borne diseases supports a finding that claim 21 is nonobvious in view of Marois. Furthermore, one skilled in the art would not think that *Talaromyces* that is capable of controlling soil-borne diseases would also control seed-borne diseases. Finally, as demonstrated above, B-422 is not the same fungal strain as the *Talaromyces flavus* strain disclosed in Marois. Thus, in its presently amended form, Claim 21 recites limitations that are not taught or suggested by Marois. As the Examiner is aware, to establish a *prima facie* case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested in the cited references. MPEP § 2143.01. It is submitted that Marois does not satisfy this requirement in the claims as presently amended.

Therefore, Applicants submit that claim 21 is nonobvious in view of Marois. Applicants further submit that claims 22-24, which depend from claim 21, are also nonobvious in view of Marois. *See* MPEP §2143.03.

In view of the foregoing, Applicants respectfully request that the §102 and §103 rejections based on Marois be withdrawn.

CONCLUSION

Applicants respectfully request a Notice of Allowance for claims 21-24 in this application. If the Examiner believes that personal communication will expedite the prosecution of this application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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